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ABSTRACT

Selection of workers for counseling programs is a process which occurs everywhere, but little research has been done on this issue. Traditional methods of selection--self-selection, interviews and/or recommendations and psychological testing--have fallen short on issues of reliability and validity. A behavioral measure which placed paraprofessional applicants in situations with members of the target population (juvenile delinquents) was created and tested. Scores generated from this measure, as well as scores from a personality measure, evaluations of skills by peers and and supervisors and scores from process measures were examined in two ways. First, using solely pre-measures as a potential selection battery, only the adolescent's rating of the judgmentalness of the counselor emerged as a predictor of successful outcome with an assigned client. Second, all measures were used in attempting to profile a "successful" volunteer. Only two variables significantly predicted success, i.e., the adolescent's rating of judgmentalness and the amount of time the counselor spent trying to change the youth within his/her family. (Author)

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Behavioral Measure for Selection of Nonprofessional Counselors

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Behavioral Measure for Selection of Nonprofessional Counselors

The development of selection measures for nonprofessional counselors to work in various capacities is much discussed but rarely acted upon. Many authors have acknowledged the importance of the selection procedure (Aiken, Brownell, & Iscoe, 1974; Delworth & Moore, 1974; Dorr, Cowen, Sandler & Pratt, 1973; Goodman, 1972; Johnson, 1971). Durlak (1971) stated:

> One of the most pressing and at the same time difficult problems for investigators to overcome is that of developing adequate selection procedures for choosing nonprofessionals to serve in the variety of programs which could make use of such personnel. It is especially difficult since there are few guidelines to be found in professional literature (p. 289).

Unfortunately, literature concerning nonprofessional programs is not particularly edifying when studying the actual selection process of counselors who will work in such programs. However, there do seem to be three common types of selection techniques utilized when choosing nonprofessionals: self-selection, interview and/or recommendations, and psychological testing.

Self-selection

Often, especially in the early programs, administrators utilized any nonprofessionals who were available and interested (Holzberg, Knapp & Turner, 1967; Umbarger, Dalsimer, Morrison & Breggin, 1962). In these instances, the program directors believed that by volunteering, the nonprofessional had shown sufficient motivation to make him/her an impactful change agent. This line of thinking was linked to those who believed that nonprofessionals had as their greatest assets a fresh approach and more "earthy" qualities which were bred or trained out of professionals (e.g., Gruver, 1971; Poser, 1966).

The major advantages of this method of selection are its ease of "administration", low cost and lack of administrative entanglements surrounding the rejection of an applicant. One disadvantage of self-selection is the increased chance

of false positives (those seemingly fit but actually unfit for service) in selection. A second disadvantage is the lack of empirical evidence relating the selection method to outcome (Rappaport, 1977).

Selection by Interview and/or Recommendations

Researchers selecting participants by interviews or recommendations "relied upon clinical judgment gleaned from interviews designed to evaluate broad personal qualities such as motivation, interest and ability to work with others" (Durlak, 1971, p. 229). Thus, these researchers attempted to screen for gross maladjustment or gross unsuitability for the program they were running.

Advantages of this approach to selection are primarily the ability to screen out likely false positives and the ease of application. The major disadvantages are the high actual cost of professional time spent in interviewing, the lack of specific objective criteria for selection and the lack of empirical evidence of accurate prediction of success (Rappaport, 1977).

Selection by Psychological Testing

In too few instances, researchers have selected nonprofessional counselors with the aid of psychological--particularly personality--tests (Roberts, 1976; Stollak, 1968; Stollak et al., 1975). Overall, the major advantages of selection by psychological testing seem to be the appearance of empiricism, the ease of administration of paper and pencil measures and the lack of expense involved. The disadvantages, however, are the amount of time spent by the respondent in filling out measures and the frequent lack of discriminative power and prediction ability (Rappaport, 1977).

Selection by Behavioral Measure

Obviously, the three prevalent methods of selecting nonprofessional counselors for participating in human service programs are fraught with pitfalls, with the largest being the lack of successful and consistent prediction to outcome. In response to this problem, Goodman (1967) attempted to venture into a new area of

selection--that of a behavioral measure called the Group Assessment of Interpersonal Traits (GAIT). He focused on the three Rogerian attributes deemed necessary for therapeutic talent--understanding, acceptance and genuineness. Applicants acted as both "disclosers" and "listeners" in order to demonstrate their abilities in such areas as warmth, empathy and self-disclosure. Applicants were rated on these qualities by other applicants as well as research staff.

However, three aspects of the measure have come under criticism. First, interrater reliabilities were reported to be "spotty" by Rappaport, Chinsky and Cowen (1971): "A few were sufficiently low to raise serious question about the scale's usefulness" (p. 118). A second criticism came from Dooley (1975), who found that test-retest correlations on peer ratings (applicant ratings of other applicants) varied widely when done at different time intervals. A third problem centered on the assumptions underlying the GAIT. The GAIT has had modest success in relating to outcome (9 of 48 significant correlations reported in Goodman (1972); 8 of 110 significant correlations reported in Chinsky and Rappaport (1971); 10 of 189 significant correlations reported in Dicken, Bryson and Kass (1977)). However, there are many programs which do not emphasize Rogerian traits when working with the target population.

The unique contribution of a behavioral measure is the placing of the applicant in a testing situation which approximates the criterion situation (Durlak, 1971; Guilford, 1969; Mischel, 1968; Rotter, 1960). But in programs focusing on other, non-Rogerian traits, this contribution is lost if the researcher is measuring attributes which are not believed to be crucial to a successful intervention. The study presented herein is an attempt to create a behavioral measure using other than Rogerian attributes--of interest are such skills as planfulness, resourcefulness and judgmentalness. In doing so, a number of other measures were examined to attempt to create both a selection battery and a profile of a "successful" volunteer.

METHOD

Setting

The Adolescent Diversion Project diverted adolescents from the juvenile justice system via an 18-week intervention on a one-to-one basis with an undergraduate. The Project was staffed by the project director and seven graduate students who served as research and supervision coordinators. Nonprofessionals were trained primarily in behavioral contracting and child advocacy skills; they were supervised in small groups, generally between six and eight, with two Project staff serving as supervisors.

Subjects

The nonprofessional counselors were 111 undergraduates at Michigan State University who were enrolled in a three-term psychology class entitled "Community Projects". Counselors were recruited and selected as follows. A new course announcement was mailed to all Freshmen, Sophomore, and Junior social science majors at Michigan State University. Interested volunteers called the Project office and were informed of a mandatory meeting. At this meeting, general information concerning the Project and the course was offered; volunteers filled out demographic information and signed contracts affirming their interest in participating in the Project. Students were then required to attend a second meeting where further paper-and-pencil questionnaires were filled out. Controlling only for sex, selection of nonprofessional counselors was done randomly from the pool of those who had completed all measures.

One note of interest might be the origin of the target population. Juveniles who had pleaded guilty to a petitioned charge in Probate court and who were deemed appropriate for the Project by the court personnel (e.g., not guilty of extremely minor or major charges) were referred to the Project. After an interview with a Project staff Intake interviewer, the adolescent and at least one of his/her parents indicated their voluntary interest in participation in the Project. Adolescents were then randomly selected from this pool after they filled out basic demographic and contractual information.

Design

There are two designs arising from this study. First, using only the measures administered prior to random selection, a step-wise discriminant function analysis was used to build a selection battery, linking the pre-measures to the assigned youth outcome. Second, using all measures, a step-wise discriminant function analysis attempted to ferret out a profile of a "successful" nonprofessional counselor. Table 1 shows the administration times of all independent measures.

Measures

Four measures will be discussed in this section. First, a personality measure--the Personality Research Form (Jackson, 1974) was administered approximately three months prior to assignment to the Project. Second, a behavioral measure, created to examine the counselors' interpersonal styles while interacting with two adolescents, was administered within eight weeks after assignment to the Project. Third, peer, supervisor and self evaluations of counselors' skills while working with their assigned youths were administered at the end of each term during the three-term commitment. Fourth, process measures, from interviews conducted with the youth, his/her parent, a peer nominated by the youth and the nonprofessional assigned to the youth, were conducted at three time intervals--six weeks after the intervention began, 12 weeks after intervention began and at termination (18 weeks after intervention began). Finally, the outcome criterion, focusing on the adolescents, was gathered from youths' police and court contacts during their assignment to the Project. Measure development of each of these measures will be delineated in detail in the following sections.

Personality Research Form (PRF)

Since occasionally nonprofessional programs use personality measures for selection, it was decided to examine one in this study. Of all the personality measures available, the PRF was chosen as an independent variable because of its careful creation (Jackson, 1970), its already factored scales, and its applicability to a normal population. Form A of the PRF (Jackson, 1974) generates scale scores

Table 1

	Pre	8 weeks after beginning course	10 weeks after beginning course	20 weeks after beginning course	30 weeks after beginning course
PRF	X				
Peer Ratings			X	X	X
Behavioral Measure		X			
Youth Outcome					X

	6 weeks after case assignment	12 weeks after case assignment	18 weeks after case assignment
Process Scales	X	X	X

on 14 general "traits", such as achievement, autonomy and social recognition. Jackson (1974) reported test-retest reliabilities ranging from .77 (autonomy) to .90 (harmavoidance).

Once the data were gathered, the raw scores for each scale were transformed into T-scores, using tables compiled and reported in Jackson (1974), derived for male and female norms. These standard scores were examined using a principal components analysis with varimax rotation. Employing the Kaiser criterion (Kaiser & Caffry, 1965), four components were extracted: Achievement-Motivation (achievement, endurance, dominance, understanding--loadings ranging from .81 to .58); Impulsivity (impulsivity, not harmavoidance, not order, play--loadings ranging from .80 to .49); Outgoingness (affiliation, not autonomy, social recognition, exhibition--loadings ranging from .78 to .56); and Aggression (aggression, not nurturance, loadings of .79 and -.57).[1] For each of these components, an average component score was computed by summing the unit-weighted T-scores of the component and dividing by the number of variables loading on the component.

Behavioral Measure

Development of the rating scale. The behavioral measure was designed to provide a vehicle for behaviorally assessing counselors' interpersonal styles when interacting with an adolescent. Staff were asked to define behaviors which both capable and inept counselors exhibited when working with the adolescents assigned to them. Four general categories of behavior were developed: style of obtaining information (level-headed, historical, judgmental, empathic, questioning style and patient); "purposefulness" (optimistic, planful, resourceful); perceived similarities with the youth (present and past) and nonverbal style (warm, anxious). These characteristics were then placed on a five-point, Likert-type scale.

Development of situations. The staff also created four situations which both reflected common situations occurring between the counselor and his/her assigned adolescent and elicited the categories of behavior defined on the measure.

[1]Further details of all measure development can be obtained from the authors.

Training of role players. At this point in the development of the measure, two adolescents who had been referred to the Project and had either completed their commitment or were within several weeks of completing their commitments, were hired to be both role players and participant raters. Each adolescent was assigned two of the four situations to present. The adolescents were given basic outlines of the problem to be presented and were supplied with an opening "line" to begin each situation. Details of what to say and how to react to people interviewing them were left up to the youth; this was because it was believed that it would be easier for the adolescents to be consistent across performances if they were able to draw from their own life experiences and feelings rather than attempting to memorize a set script.

The training as a role player consisted of first, interacting in a role play with staff members playing nonprofessional counselors, and second, receiving feedback on the consistency of his/her performances. These steps took place approximately eight times with each adolescent. Adolescents met with the role players for approximately seven hours of training. All of these interactions were tape recorded, in order to serve as rater-training material.

Training raters. Once the adolescents had been trained in their role plays, all raters were trained to rate the situations. Observer raters were two female undergradutes who were formerly involved with the Project and one female clerical Project staff member. Initially, both participant and observer raters met for a general introduction to the measure--an explanation and examples of the response categories, a description of the rating process, etc. Next, all raters rated responses from the audiotapes of an interaction and discussed their discrepant ratings. They began rating only single responses, then longer segments of the interactions and finally complete five-minute interactions. Finally, the raters practiced rating "live" role plays between the staff role playing nonprofessional counselors and the adolescents again.

Another important process was interspersed throughout this training. There was a continual revamping of the response categories of the characteristics. As raters discussed ratings, they helped to clarify and state the categories in more behavioral terms. As a result of this process, it was decided to have the responses be frequency counts. In order to keep track of these counts, the observer raters were given tally sheets. (Since the participant raters were interacting face-to-face with the counselors, it was thought that their using such tally sheets would be disruptive to the interviews.)

Raters were trained until they attained interrater correlations of approximately .85. Interrater reliabilities were checked at random intervals during each session of the running of the measure, and feedback was given to raters at that time. In addition, feedback was given to the adolescents concerning the consistency of their performances.

In addition to the observer and adolescent participant ratings for each situation, the nonprofessional also rated him/herself on each characteristic for all four situations. All but the self-ratings were completed immediately after each situation; in order to help maintain subject naivete, the volunteers filled out their self-ratings on all situations after the completion of the final situation.

Thus, for each of the four situations, there were three ratings on each of 20 characteristics--one observer rater's score, one participant rater's (adolescent) score and one self-rating.

Development of component scores. It was necessary to collapse the 240 characteristic scores generated. First, endorsement frequencies were examined and four low variance items were eliminated ("illogical", "cold", "calm", and "anxious"). Next, the 16 situation-specific characteristics were examined for generalizability of observer raters (Cronbach, Gleser, Nandy & Rajaratnam, 1972). Due to the high degree of convergence of these ratings, category scores were averaged across observer raters (when there was more than one, due to interrater reliability checks).

Participant characteristic scores were similarly averaged. Third, a component structure underlying the remaining 16 characteristics was sought which would cover all types of raters (observer, participant and self). Observer rater scores' component structure seemed to vary from one situation to the next, as did the participant raters'; however, self raters' scores exhibited an empirically as well as rationally sound structure. Again utilizing Kaiser's criterion, there were five components extracted: Voiced Social Comparison, Resourcefulness, Judgmentalness, Warmth, and Historicalness (see Table 2). In addition, the single item "Empathy" was retained as a singlet due to research interest. Because of the rational acceptability of this component structure, it was decided to apply this structure to the observer and participant raters' scores as well. Thus, from the behavioral measure there emerged 18 average component scores-- six for each of the three rater types.

Peer, Supervisor and Self In-Class Evaluation Ratings

These measures were created to assess what counselors, their peers and their supervisors perceived counselors to be like during supervision sessions. Peer and supervisor evaluations were created by the staff of the Project. Characteristics consisted of those that nonprofessional counselors had exhibited during supervision sessions. They were rated on a scale from one to five--i.e., "is always like this" to "is never like this". Characteristics were of four types: style of applying class skills (confidence, comfortableness, effectiveness, planfulness, perseverance); ability to adapt to assigned youth and significant others (getting along with youth, family and school officials); style of interaction in class (understanding the model, talkativeness, following through with suggestions, giving input into others' cases, showing interest, helpfulness); and general impressions (intelligence, motivation, success in career, well-liked).

Each counselor rated both him/herself and all other undergraduates in his/her supervision group. Supervisors, likewise, rated all of the counselors in their

Table 2

Behavioral Measure Component Structure
(Self Rating)

Component	Eigenvalue	Pct of Var	Cum Pct	Variable Name
1	2.91214	18.2	18.2	optimistic
2	2.28154	14.3	32.5	pessimistic
3	1.64565	10.3	42.7	similarities-now
4	1.29735	8.1	50.9	dissimilar-now
5	1.12774	7.0	57.9	similarities-then
6	.98221	6.1	64.0	dissimilar-then
7	.86263	5.4	69.4	historical
8	.81006	5.1	74.5	judgmental
9	.68371	4.3	78.8	resourceful
10	.63165	3.9	82.7	planning
11	.55192	3.4	86.2	empathic
12	.53398	3.3	89.5	discounting
13	.51291	3.2	92.7	warm
14	.48153	3.0	95.7	questioning style
15	.36031	2.3	98.0	impatience
16	.32467	2.0	100.0	talkative

Table 2 (Cont.)

Component	Voiced Social Comparison	Resource-fulness	Judgmen-talness	Warmth	Histori-calness	Commun-nality
1	.25880	.49176	.00339	.21969	.45953	.56825
2	.04254	-.10285	.73660	.10667	-.02123	.56680
3	.76947	.10442	-.01139	.01594	.10628	.61467
4	.66548	-.00810	.29495	-.10663	-.02823	.54209
5	.73610	.02799	-.20512	.24845	.20006	.68645
6	.70344	.09200	.14787	.10375	-.33684	.64939
7	-.04759	.05098	-.00970	.10470	.76603	.60272
8	.03794	.01861	.81566	-.04205	.06400	.67296
9	.10072	.71166	-.00103	.17000	.05677	.54873
10	-.08305	.82856	.05717	.17212	-.02129	.72675
11	.19746	.40421	-.24729	-.37731	.34417	.52434
12	.08330	.33846	.55731	-.14336	-.18396	.48649
13	.12308	.24107	-.14890	.67408	.17122	.57913
14	.10638	.28767	.00298	.61886	-.22177	.52624
15	.37705	-.24688	.38346	-.20172	.33794	.50505
16	-.01751	.01234	.03244	.66477	.14463	.46436

groups. Thus, for each person at each time period, there were several peer ratings (depending on class size), two supervisor ratings and one self rating for each of the characteristics. These measures were collected at three points during the course of the Project--once at the end of each term.

Component scores were developed in a manner similar to that used with the behavioral measure. Two low variance items ("comfortableness" and "intelligence") were eliminated upon examination of endorsement frequencies. Since generalizability across peer raters was high (.36--"getting along with family of youth"--to .73--"warm") and correlations on all but "getting along with school officials" between supervisors were also high (.25--"getting along with family"--to .80--"confident"), ratings were collapsed and averaged within type of rater (peer and supervisor). All three types of raters exhibited the same underlying pattern. One overall scale of all items emerged, with Cronbach's alphas of .96 (peer), .95 (supervisor), and .91 (self).

In addition, it was discovered that these nine scores (three rater scores at three time periods) were highly intercorrelated. Because of these intercorrelations, all scores from all time periods were averaged to obtain one measure of overall in-class evaluation.

Process Measures

Process measures were examined in order to ascertain whether what occurred between the counselor and his/her assigned youth--how they got along, how often they got together, etc., as reported by different sources--in any way predicted outcome. This information was obtained from the "intervention" questions of the process interviews.

Interviews were conducted with the adolescent referred to the Project, his/her parent, one peer nominated by the adolescent and the nonprofessional assigned to the youth. These interviews were conducted at three points: six weeks after intervention began, 12 weeks after intervention began, and at termination (18 weeks

after intervention began). Each interview was conducted informally, tape recorded and coded by a trained undergraduate interviewer. One interviewer was assigned to conduct all interviews for each case, and was blind to any nonprofessional measures.

Endorsement frequencies were examined, and questions with little variance were dropped. Scales of the remaining items were constructed using the rational-empirical method (Jackson, 1970). Thirteen scales emerged from this procedure, with Cronbach's alphas ranging from .51 (Recreational Activities) to .95 (Contracting Activities). (See Table 3 for a summary of these scales.) Due to high correlations of scores across sources of information, only the intervention data received from the youth was utilized in this study. Thus, there were 13 scale scores at each of three time periods, or 39 scale scores available for analyses.

Outcome Measures

Outcome data were obtained from three sources initially: police records (number and severity of contacts), court records (number and severity of court contacts) and school records (grade point average, number of days present, number of credits earned). Outcome data were collected only concerning time which had lapsed while the youth was involved in the Project. All data were collected by coders blind to any of the counselor's measures.

Once the outcome data were collected, they were scrutinized for meaningful patterns. It was decided to ignore school data, because there was no clear break-off between attenders and nonattenders. Ideally, police contacts would have been used as the sole measure of recidivism (failure). However, due to the incompleteness of available police data, it was decided to classify as a failure anyone having any further contact with either a police department or the Probate Court. In this way, the most conservative outcome criterion was adopted, for even the most minor offenses were considered a failure on the part of the Project.

Table 3

Summary and Reliability of Intervention Scale Scores

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1. Volunteer/Target Involvement: frequency and amount of contact. (α = .53)

2. Lack of Complaints/Positive Involvement: the extent to which the youth and the assigned volunteer get along and the lack of problems involved in the intervention process. (α = .86)

3. Parent Involvement: the extent to which parent(s) are included in the intervention and the extent of a relationship built up between the parent(s) and the volunteer. (α = .85)

4. Peer Involvement: extent to which friends of the youth are involved in the intervention. (α = .81)

5. Recreational Activity: amount of recreation involved in the time spent with youth by volunteer. (α = .51)

6. Family: Focus on Changing Parents: extent to which the intervention focused upon changing the parents' behavior in the family. (α = .86)

7. Family: Focus on Changing Youth: extent to which the intervention focused upon changing the youth within the family context. (α =.71)

8. School: Focus on Changing School: extent of the intervention focusing on bringing improvement to the school environment by focusing on school staff. (α = .70)

9. School: Focus on Changing Youth: extent of the intervention focusing on school behavior of the youth. (α = .86)

10. Job-seeking: extent to which the intervention focused upon getting the youth employment. (α = .86)

11. Legal System Involvement: extent to which the volunteer became involved in the juvenile justice system for the youth. (α = .77)

12. Contracting Activities: extent to which the voluntter utilized behavioral contracting as an option in the intervention. (α = .95)

13. Advocacy Activities: extent to which the volunteer intervened on behalf of the youth to gain needed resources. (α = .82)

RESULTS

Selection Battery

The first set of results focused on the potential creation of a selection battery, using only measures which could be collected prior to Project selection. The success/failure designation served as the outcome criterion. The four components of the PRF and the 18 components of the behavioral measure were entered as predictors in a discriminant function analysis.

The results of this analysis are presented in Table 4. Predictors were considered significant only if there was a significant change in Rao's V at the $p < .05$ level (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975). With this criterion, only one variable emerged as a significant predictor--the Participant's (adolescent) rating of "Judgmentalness". Thus, the adolescents viewed the "successful" volunteer as less judgmental (offered fewer opinions and was less pessimistic) during the behavioral measure. This must be interpreted with caution, however, for the canonical correlation coefficient was only .2499. In addition, an estimate of the cross-validated multiple correlation (Darlington, 1968) was computed; $\rho_c = .191$.

Profile of A Successful Volunteer

The second set of results was the attempt to profile a "successful" volunteer. Three separate step-wise discriminant function analyses were conducted using the success-failure designation as the outcome criterion. The Intervention scale scores of each time period were utilized as predictors; however, the scales of Legal Involvement were omitted due to their overlap with the outcome criterion. Again, independent measures were considered significant only if there was a significant change in Rao's V at the level of $p < .05$. These three separate analyses yielded only one significant predictor: Family: Focus on Changing Youth (time 2). This variable was then entered into a fourth step-wise discriminant function analysis, adding the 18 component scores of the behavioral measure. From this

Table 4

Discriminant Function Analysis - Selection Battery

Standardized Discriminant Coefficients

Variable	Coefficient	Group Centroids
Participant Rater, Judgmentalness	.18611	Success -.02753
		Failure .07785

Prediction Results

Actual Group	Predicted Group	
	Success	Failure
Success	48	34
Failure	12	17

% Correctly Classified: 59%

$\chi^2 = 3.252$, $p < .07$. Canonical $r = .2499$

fourth analysis, two significant predictors emerged: Family: Focus on Changing Youth (time 2) and Participant Rater's score of "Judgmentalness" from the behavioral measure.

In addition to the two predictors generated from the fourth discriminant analysis, the remaining variabls (four PRF factors and one in-class evaluation score) were entered into a fifth discriminant analysis. Even with this addition, the only two variables significantly predicting success were still Family: Focus on Changing Youth (time 2) and Participant-rated "Judgmentalness". According to this analysis, therefore, a "successful" volunteer had the following characteristics. He/she was lower on Family: Focus on Changing Youth (he/she implemented fewer interventions aimed at altering the youth's behavior in the family), and he/she was lower on Participant-rated "Judgmentalness" (the adolescent felt he/she offered few opinions and was less pessimistic during the behavioral measure). Table 5 presents the results of the final discriminant function analysis.

As with the selection battery, the final outcome of the "successful" volunteer profile was not statistically very impactful. A canonical correlation coefficient of .3181 was calculated. Again, applying Darlington's formula (1968) for an estimate of the cross-validated multiple correlation, $\hat{\rho}_c$, was computed to be .059. Of course, even this correlation is inflated due to the methods employed and should be interpreted with appropriate caution.

DISCUSSION

There were few meaningful results gleaned from the analysis of the profile of the "successful" volunteer. Therefore, the major focus of the discussion will be on the attempted creation of a selection battery and the issues raised therein.

A first major issue in this study is the lack of predictive results of the independent variables. In this study, there were four types of measures: a paper and pencil measure of personality (PRF), a paper and pencil measure of co-workers' evaluations of intervention skills (Peer and Supervisor Ratings),

Table 5

Final Discriminant Function Analysis

All Predictors

Standardized Discriminant Coefficients

Variable	Coefficient	Group Centroids
Participant Rater, Judgmentalness	.81902	Success -.19769
Family: Focus on Youth	.64953	Failure .55899

Prediction Results

Actual Group	Predicted Group	
	Success	Failure
Success	56	26
Failure	13	16

% Classified Correctly: 69%

$\chi^2 = 9.811$, $p < .002$. Canonical $r = .3181$

an interview measure of the process of the intervention (Intervention scale scores) and a behavioral measure of interaction style with an adolescent. It is not especially surprising that the paper and pencil measures (PRF and in-class evaluations) did not predict well, for other researchers have reported similar findings (e.g., Mordock & Platt, 1969; Rappaport, 1977; Rappaport, Chinsky & Cowen, 1971). The process interviews similarly failed to meaningfully predict outcome. It is possible that either the process interviews did not measure accurately the actual intervention process, or the process of the intervention is not directly related to the outcome. However, since the behavioral measure was constructed with an eye toward its predictive capabilities, it is especially important to examine its lack of prediction.

There was little generalizability across situations; only the self-ratings showed that the situations were the same; there was even little generalizability across time (as little as 30 minutes). There was also little generalizability across type of raters. Therefore, it is not particularly surprising, statistically, that the measure did not predict success.

But why was there such a lack of generalizability? In this research, a measure was created which was as close to the criterion situation as realistically possible, and raters were carefully trained. And yet, in spite of these optimal conditions, there still was no meaningful ability to predict success. One conclusion could be that there simply was too little variance in the counselors' behavior. The group of 111 counselors was already a very select group, due to the involved self-selection process involved in the Project. Another conclusion which could be drawn is that even under the most realistically optimal conditions for a selection measure, it was still impossible to predict a successful volunteer from pre data.

A second major issue in this study is the utility of the behavioral measure as a method of selecting nonprofessional counselors who will be successful. It

is quite expensive to administer: for the Project (with inexpensive student labor and subsidized space and supplies), the cost was approximately $15 per student. For an outside agency, this figure could easily rise to $75 or $100 per student. This expense is clearly not outweighed by a higher utility than more simple and inexpensive measures; if this were the case, there might be cause for still utilizing a high utility-high expense measure (Wiggins, 1973).

The Selection Problem

Why could it be that researchers have such consistent lack of success when using various methods of prediction? Figure 1 represents a model underlying the components of this study. The counselors self-selected to a certain extent, were then assessed, randomly selected, trained and matched by Project staff. The target adolescents were referred to the Project by court staff assessed by Project staff and matched with a nonprofessional counselor. However, as illustrated in Figure 1, environmental events were constantly at work on both the nonprofessional counselors and the youth as well as their interrelationships. These events included family and peer relations, attitudes, labeling processes and important life events (Elliot & Voss, 1974; Goodman, 1971; Kantrowitz, Davidson, Blakely & Kushler, 1978; Klein, Teilmann, Lincoln & Labin, 1978). Some of these were tapped through process interviews and known by the staff--e.g., events occurring in the youth's life as well as activities relating to the intervention. However, much of the model was unknown, such as the match of the nonprofessional counselor and the youth, the counselor's environmental events, and even the majority of the processes involved--e.g., how the match interacted with the intervention, why both the counselor and the target adolescent decided to be involved and how assessment affected the match and later processes. All of these areas contributed variance which was neither regulated nor monitored by this study. Finally, other factors, such as social labeling, may have entered into the behavioral definition of the outcome criterion used in this study.

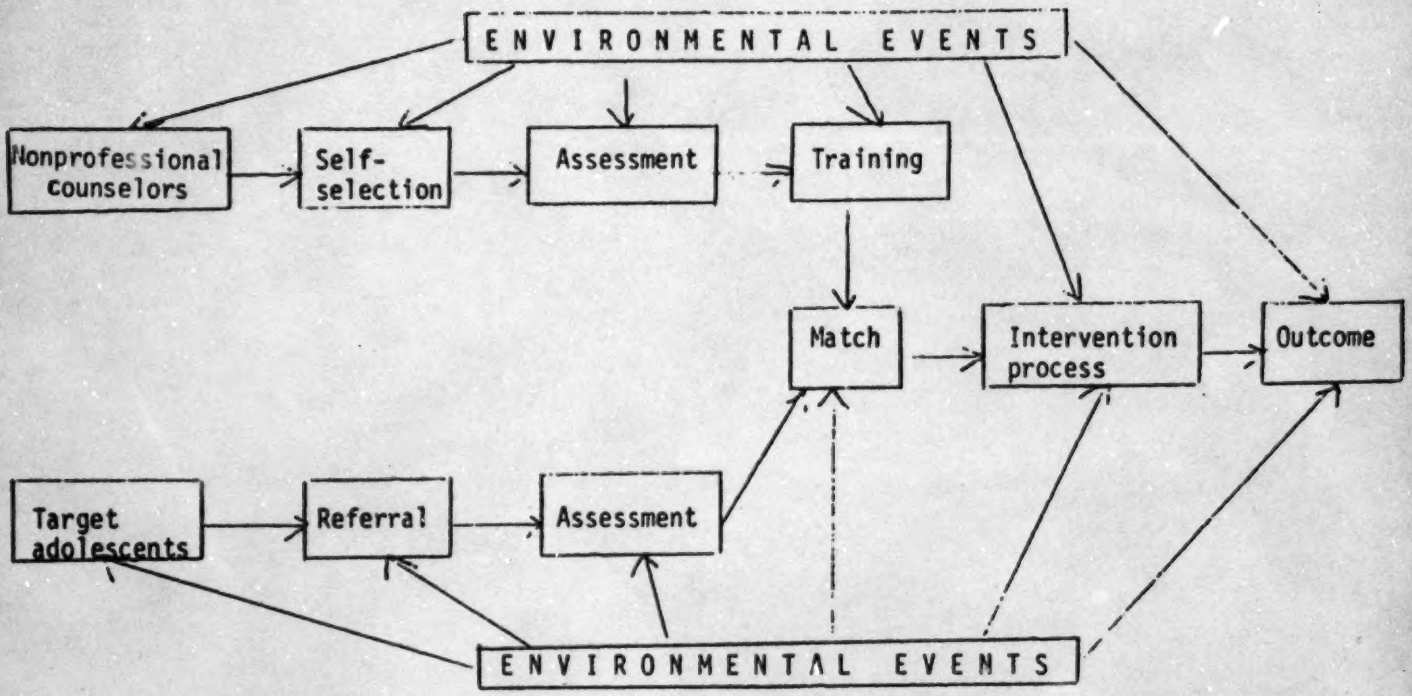

Figure 1. Conceptual Model

Therefore, not only was all the variance not accounted for in the process measures, but the outcome criterion may have been only minimally related to what the youth actually did (Gold, 1970; Klein & Carter, 1976).

Thus, this research took place within the context of a number of variables. These are present in all naturalistic social science research; however, they are seldom acknowledged and dealt with in such settings. Therefore, due to this large number of unknown and uncontrolled variables, it seems understandable that selection in such areas is destined to be unsuccessful.

In conclusion, it becomes apparent why no one has been successful in discovering valid selection techniques. There are so many unknowns--either unmonitored or currently unmonitorable--that as the state of the art stands at this moment, it is impossible to track that which is assessed in the selection process through to the assessment of the final outcome. Thus, it would appear that the search for a selection method could be temporarily skirted and efforts might more rightfully be focused upon delineating in more specifiable terms that which is occurring at each of the steps of the model in order to better understand the workings of the model. Until these components can be more clearly understood, the issue of selection methods is at best an academic one.

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Behavioral Measure
All Raters

Ratee's #_____
Rater's #_____
Situation #_____
Time elapsed_____

1. Illogical (flighty, unreasonable, doesn't make sense, off-the-wall)

1	2	3	4	5
Made 0 illogical responses	Made 1 illogical response	Made 2 illogical responses	Made 3 illogical responses	Made more than 3 illogical responses

2. Optimistic (encouraged youth)

1	2	3	4	5
Made 0 encouraging responses	Made 1 encouraging response	Made 2 encouraging responses	Made 3 encouraging responses	Made more than 3 encouraging responses

3. Pessimistic (discouraged youth)

1	2	3	4	5
Made 0 discouraging responses	Made 1 discouraging response	Made 2 discouraging responses	Made 3 discouraging responses	Made more than 3 discouraging responses

4. Voiced similarities - now (I'm like you in that way)

1	2	3	4	5
Voiced 0 similarities with youth in present tense	Voiced 1 similarity with youth in present tense	Voiced 2 similarities with youth in present tense	Voiced 3 similarities with youth in present tense	Voiced more than 3 similarities with youth in present tense

5. Voiced dissimilarities - now (I'm not like you in that way)

1	2	3	4	5
Voiced 0 dissimilarities with youth in present tense	Voiced 1 dissimilarity with youth in present tense	Voiced 2 dissimilarities with youth in present tense	Voiced 3 dissimilarities with youth in present tense	Voiced more than 3 dissimilarities with youth in present tense

6. **Voiced similarities - then** (I was like you in that way when I was your age)

1	2	3	4	5
Voiced no similarities with youth in past tense	Voiced 1 similarity with youth in past tense	Voiced 2 similarities with youth in past tense	Voiced 3 similarities with youth in past tense	Voiced more than 3 similarities with youth in past tense

7. **Voiced dissimilarities - then** (I wasn't like you in that way when I was your age)

1	2	3	4	5
Voiced no dissimilarities with youth in past tense	Voiced 1 dissimilarity with youth in past tense	Voiced 2 dissimilarities with youth in past tense	Voiced 3 dissimilarities with youth in past tense	Voiced more than 3 dissimilarities with youth in past tense

8. **Historical** (mentioned past, asked about past of youth)

1	2	3	4	5
Asked about past 0 times	Asked about past 1 time	Asked about past 2 times	Asked about past 3 times	Asked about past more than 3 times

9. **Judgmental** (voiced opinions, blaming, critical, used "should", "ought to")

1	2	3	4	5
Voiced 0 opinions	Voiced 1 opinion	Voiced 2 opinions	Voiced 3 opinions	Voiced more than 3 opinions

10. **Resourceful** (ideas, things to do, courses of action)

1	2	3	4	5
Thought of 0 ideas	Thought of 1 idea	Thought of 2 ideas	Thought of 3 ideas	Thought of more than 3 ideas

11. **Specific planning** (finding out, making steps)

1	2	3	4	5
Made steps for 0 ideas	Made steps for 1 idea	Made steps for 2 ideas	Made steps for 3 ideas	Made steps for more than 3 ideas

12. **Empathic** (mentioned feelings of youth)

1	2	3	4	5
Mentioned 0 feelings	Mentioned 1 feeling	Mentioned 2 feelings	Mentioned 3 feelings	Mentioned more than 3 feelings

13. **Discounting** (said youth shouldn't feel as s/he does)

1	2	3	4	5
Made 0 discounting responses	Made 1 discounting response	Made 2 discounting responses	Made 3 discounting responses	Made more than 3 discounting responses

14. **Warm** (friendly, caring, leaned forward, made eye contact, smiled, nodded)

1	2	3	4	5
never warm	rarely warm	sometimes warm	usually warm	always warm

15. **Cold** (unfriendly, unfeeling, "big deal", looking down, leaning back, frowning)

1	2	3	4	5
never cold	rarely cold	sometimes cold	usually cold	always cold

16. **Calm** (voice steady, open relaxed body posture, direct eye contact, loud voice, comfortable, sat still)

1	2	3	4	5
never calm	rarely calm	sometimes calm	usually calm	always calm

17. **Anxious** (voice quivered, hands shook, closed body posture, looked down, soft voice, moved around)

1	2	3	4	5
never anxious	rarely anxious	sometimes anxious	usually anxious	always anxious

18. **Questioning style** (closed-ended: answered by "yes", "no", or one word; open-ended: have to give a long answer)

1	2	3	4	5
all closed-ended questions	more close- than open-ended questions	about equal number of each	more open- than close-ended questions	all open-anded questions

19. **Impatience** (interrupting youth while s/he is talking; didn't wait for answer to first question before asking another)

1	2	3	4	5
Jumped in 0 times	Jumped in 1 time	Jumped in 2 times	Jumped in 3 times	Jumped in more than 3 times

20. **Talkative** (pace of questions)

1	2	3	4	5
Never talked	Big pauses after youth response	Questions promptly followed youth response	Lectured youth	Youth never talked after opening line